# New York State Department of Transportation Yellow Flag NB2228W008

By: Ben Colangelo

Flag Date: March 18, 2022

Superseding Information:

This flag supersedes: YF NB2128W004

#### Structure Information

BIN: 1065318 Region: 11 - NEW YORK CITY

Feature Carried: 278I278IX2M23027 County: KINGS

Feature Crossed: 6TH AVENUE Political Unit: City of NEW YORK
Orientation: 8 - NORTHWEST Approximate Year Built: 1962

Posted Load Matches Inventory: Yes

Bridge Load Posting (Tons): Not Posted for Load

Primary Owner: New York State Department of Transportation

Primary Maintenance Responsibility: 12 - State - Subcontracted to another Party

Typical or Main Span Type: 3 - Steel, 02 - Stringer/Multi-Beam or Girder

This Bridge is not a Ramp Number of Spans: 322

#### **Verbal Notification Information**

Person Notified: Not Contacted Date:

Of:

## Signature Information

Signature: Ben Colangelo, P.E. 068498 Date: March 25, 2022

Reviewed By: Robert Kemp Date: March 25, 2022

Attachments: 6

Flag Date: March 18, 2022

### Flagged Elements

Parent Element	Element	Total Quantity	Unit
Span Number : 12			
	107 - Steel Open Girder/Beam	801	ft
	PR831 - Steel Beam End	34	each

### Flagged Condition Description

This Yellow Flag No. NB2228W008 supersedes existing Yellow Flag No. NB2128W004.

Location: Span 12, Girder G15 at Pier 12,

Description: Girder G15 exhibits a 6" long curved crack in the web of the girder at the top cope, at the connection to the Pier 12 Capbeam (no change from the previous inspection). Adjacent to this curved crack, also in the girder web, there is a 3"H x ½"W corrosion hole with a 1" long vertical crack at the top of the hole and a 3" long vertical crack at the bottom of the hole (Photo 4). The cracks and the hole are in an area of 30 to 70% Section Loss around the top cope. A Dye Penetrant test could not be performed due to the tight access to the area (Photo 2).

The condition has not significantly changed since 2021 Biennial Inspection.

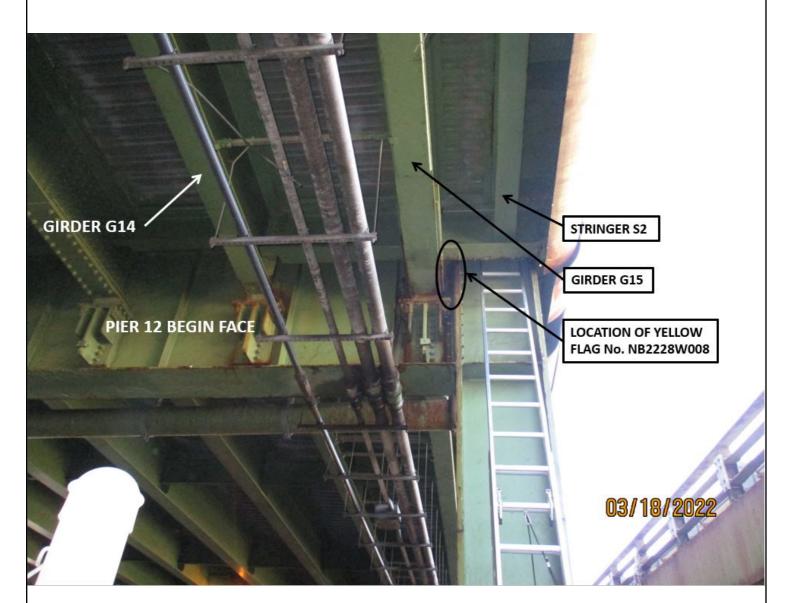
#### Notes:

- 1. At the lower web of Girder G15, over the bearing, there is an existing repair consisting of a double channel bolted to the web of the girder, above the bottom flange and bearing area. This repair is acting like a cantilever beam from the end diaphragm to the bearing, however this bolted channel repair does not address the transient nature of the crack at the top cope. The existing repair at this location also includes a web strengthening plate (see Sketch).
- 2. The adjacent Stringer S2, 30" to the right and supporting the curb and railing, is in good condition.
- 3. The adjacent Girder G14, 66" to the left, exhibits approximately 30% total section loss in the web of the girder along the guide angle connection to the capbeam.
- 4. This area is accessed by a 35 ft bucket truck and 24 ft extension ladder from a right lane closure and adjacent curb area of the eastbound roadway of 65th Street between 5th Avenue and 6th Avenue.

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# Flag Photographs

Photo Number: 1 Photo Filename: 304-3025.JPG



Attachment Description: Span 12 G15 at Pier 12, Looking End: General view of the flagged location that exhibits a curved crack 6" long in the web at the top cope at the connection to Pier 12 Capbeam with an adjacent 3"H x 1/4"W corrosion hole with a 1" long vertical crack at the top of the hole and a 3" long vertical crack at the bottom of the hole.

Photo Number:

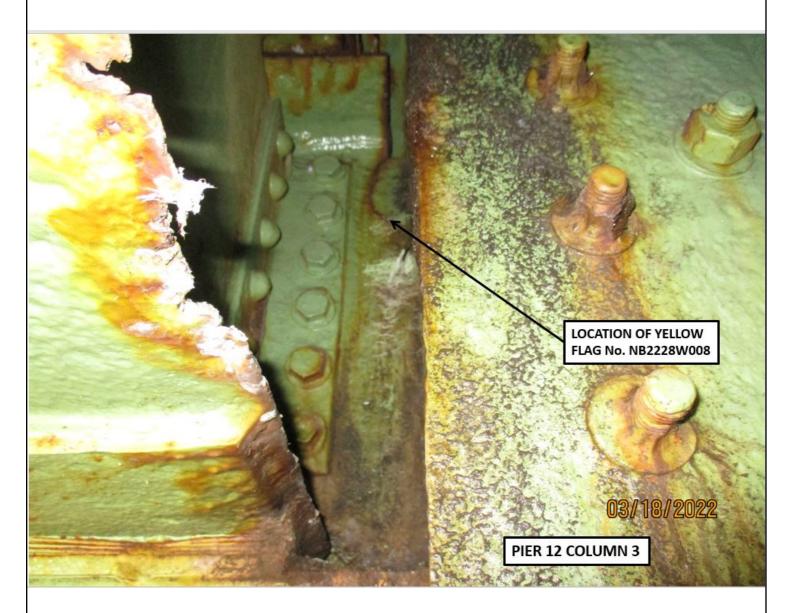
Photo Filename:

304-3020.JPG

STRINGER S2 **GIRDER G15** LOCATION OF YELLOW PIER 12 BEGIN FACE FLAG No. NB2228W008 03/18/2022

Attachment Description: Span 12 G15 at Pier 12, Looking End-Left: General view of the flagged location that exhibits a curved crack 6" long in the web at the top cope at the connection to Pier 12 Capbeam with an adjacent 3"H x 1/4"W corrosion hole with a 1" long vertical crack at the top of the hole and a 3" long vertical crack at the bottom of the hole.

Photo Number: 3 Photo Filename: 304-3008.JPG



Attachment Description: Span 12 G15 at Pier 12, Looking Left: Close-up view showing the right side of the Girder G15, that exhibits a curved crack 6" long in the web at the top cope at the connection to Pier 12 Capbeam with an adjacent 3"H x 1/4"W corrosion hole with a 1" long vertical crack at the top of the hole and a 3" long vertical crack at the bottom of the hole.

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Photo Number: 4 Photo Filename: 304-2997.JPG



Attachment Description: Span 12 G15 at Pier 12, Looking Left: Close-up a curved crack 6" long in the web at the top cope at the connection to Pier 12 Capbeam with an adjacent 3"H x ¼"W corrosion hole with a 1" long vertical crack at the top of the hole and a 3" long vertical crack at the bottom of the hole.

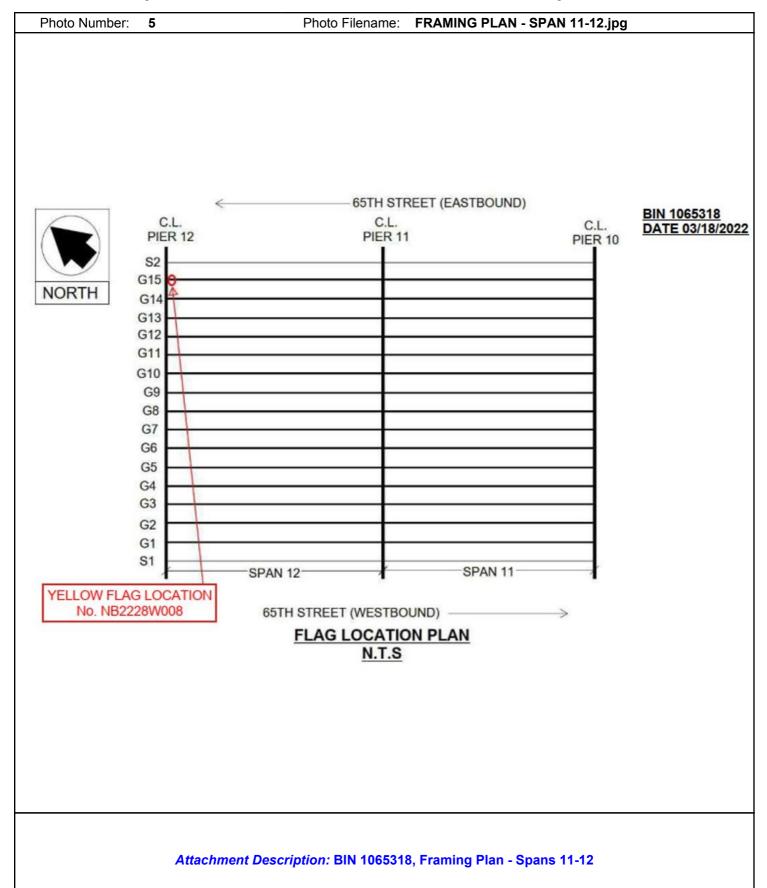
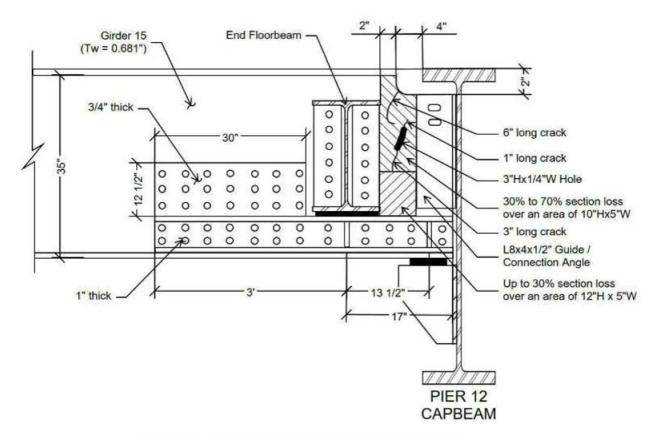


Photo Number: 6 Photo Filename: 22-YF NB2228W008 FLAG SKETCH.jpg

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SPAN 12, GIRDER 15 BEAM END AT PIER 12 (LOOKING LEFT) N.T.S

Attachment Description: 22-YF NB2228W008, Right Elevation Section of Girder G15, Looking Left (NTS)